



## **The Future of Mathematics Pre-university Education (with an Emphasis on Iranian High School Educational System)**

**Fateme Dorri**

Payame-noor University (Iran)

[dorri.f@gmail.com](mailto:dorri.f@gmail.com)

There is no doubt that learning mathematics for youth increases their logical argumentation skills and their abilities for thinking and reasoning. Furthermore, there are countless witnesses to show that mathematics has always been “the language of science”. So a good mathematics education in elementary and high schools would be essential for students to have a more precise understanding of the real world. Besides in the 20th century, some new branches of mathematics have been invented and rapidly became applicable in other sciences and real life, that high school graduates know almost nothing about these branches. However, since during high school period the students will decide about their higher education or career, it is necessary for them to have an introduction to some aspects of modern mathematics, and at least know a simple and brief history of science development in the last two centuries.

When we look at the textbooks' contents of Iran's high schools about twenty years ago and the textbooks of the new educational system in the last over fifteen years, there seem a lot of changes to be needed: paying too much attention to Algebra and Analytic Geometry in the older system of education and to Calculus in the new system, without expressing the applications, has gave high school mathematics a lifeless feature, that the students – even the talented ones- aren't motivated enough to learn it.

In this paper we have a careful examination of Iran's high school textbooks' contents in two educational systems over the late 35 years. Then we briefly explain the deficiencies and difficulties of those contents, and at last, we'll give some practical suggestions to alter or regenerate some textbooks' contents which are more appropriate and necessary for nowadays life and science.